# Marine Life of Yaquina Head

#### By Ed White

December 1995 Minor Updates June 1998 Revised and Updated by Terry Morse, January 2003 Last Revised: 10 November 2004

#### Introduction

The following is a partial list of animals and algae found at Yaquina Head Outstanding Natural Area. It is divided into lists of Algae, Invertebrates, Fish, and Marine Mammals. For information on birds, please look at one of the excellent lists by Range Bayer. A more complete list of invertebrates was completed by Dr. Sylvia Yamada.

Yaquina Head is a rocky headland located just north of Newport, Oregon. It has nearly two miles of rocky intertidal habitat at low tide. It is protected from collecting, which provides a refuge for many animals. In 1994, a new intertidal habitat was completed at Yaquina Head, created from a former rock quarry. Called Quarry Cove, this handicapped accessible area is unique in being a man-made environment.

The lists were compiled over a period of six months from March to September 1995. This list should not be considered complete. It probably holds many inaccuracies, as there was not enough time to identify everything positively. Many species included in the list were either personally observed and identified, or were listed in archaeological reports from digs at Yaquina Head. Species listed in archaeological reports were identified as "historical" or "archaeological." One species (*Gnathostomula karlingi*) was listed in Kozloff's *Marine Invertebrates of the Pacific Northwest* as being first described at Yaquina Head in 1971. Unfortunately, I have not found this tiny elusive worm.

Each list contains information as to where each species would probably be found. The Spray Zone consists of areas that typically only get water from waves on the highest tides or during storms. Here some small snails and limpets can be found. The High Tide Zone is below this. It is the area within a few feet of the average high tide line. The Mid Tide Zone comes next; it often has mussels and Gooseneck Barnacles. The Low Tide Zone is the part that is covered with water most of the time. It is populated by such creatures as the Sunflower Star and the Gumboot Chiton. Another environment I have listed is the pelagic, the waters surrounding Yaquina Head. Deep waters can be defined as waters more than sixty feet deep. Tidepools are areas of water left behind by a receding tide.

I have broken up Yaquina Head into several different parts. Quarry Cove (QC) is the newly constructed habitat and the areas immediately around it. The Marine Gardens (MG) is the tidepools accessible from the staircase near the lighthouse. Fisherman's Path (FP) is on the south

side of the headland with a difficult path leading to this exposed location. This area should be avoided by the general public due to the danger of sneaker waves. I have been hit twice by waves there.

When tidepooling at Yaquina Head please remember that the environment here is very fragile. Watch your step. It is against the law to take animals. It is also a good idea to watch the waves and the tides. There are several places at Yaquina Head where you could get stranded.

Reviser's Note: Only a few species have been added to Ed White's 1995 list. Most of the revision involves updating the scientific names of the species and adding higher-level classification information to show relationships between species, particularly among the bony fishes. All scientific names and higher-level groupings have been checked against the Integrated Taxonomic Information System of the U.S. Department of Agriculture (<a href="http://www.itis.usda.gov/">http://www.itis.usda.gov/</a>), except for the subkingdoms of plants, which were gleaned from ITIS and from other sources on the web. The only species I was not able to locate in the ITIS database is *Gnathostomula karlingi* (Phylum Gnathostomulida), mentioned above by Ed. – TM

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| <b>Location Key</b>           |                                    |                       |  |  |
|-------------------------------|------------------------------------|-----------------------|--|--|
| QC = Quarry Cove              | MG = Marine Gardens (Cobble Beach) | FP = Fisherman's Path |  |  |
| Subtidal = below lowest tides | Pelagic = open ocean               |                       |  |  |

### **Marine Mammals**

| Whales, Porpoises: Order Cetacea |                               |                               |             |  |
|----------------------------------|-------------------------------|-------------------------------|-------------|--|
| Common Name                      | Scientific<br>Name            | Status                        | Location(s) | Notes  |
| Gray Whale                       | Eschrichtius robustus         | Migratory, Summer<br>Resident | Pelagic     |  |
| Humpback Whale                   | Megaptera<br>novaeangliae     | Migratory                     | Pelagic     | Possible   |
| Right Whale                      | Eubalaena<br>glacialis        | Migratory                     | Pelagic     | Possible<br>historical<br>wintering areas in<br>Oregon   |
| Orca (Killer Whale)              | Orcinus orca                  | Transient                     | Pelagic     |  |
| Harbor Porpoise                  | Phocoena<br>phocoena          | Transient                     | Pelagic     |  |
| Dall's Porpoise                  | Phocoenoides dalli            | Transient                     | Pelagic     |  |
| Minke Whale                      | Balaenoptera<br>acutorostrata | Resident                      | Pelagic     | Common<br>offshore; less<br>conspicuous than<br>Gray Whales,<br>hence probably<br>under-reported |

### Seals, Sea Lions: Order Carnivora

| Common Name               | Scientific<br>Name         | Status     | Location(s)                                      | Notes               |
|---------------------------|----------------------------|------------|--|---------------------|
| Steller Sea Lion          | Eumetopias<br>jubatus      | Transient  | Pelagic,<br>Seal Island                          | Historical haul out |
| California Sea Lion       | Zalophus<br>californianus  | Transient  | Pelagic,<br>Seal Island                          |                     |
| Northern Fur Seal         | Callorhinus<br>ursinus     | Historical | Pelagic  | Archaeological      |
| Northern Elephant<br>Seal | Mirounga<br>angustirostris | Transient  | Pelagic,<br>injured pup<br>on beach<br>June 1998 |                     |

| Common Name | Scientific<br>Name | Status   | Location(s)            | Notes |
|-------------|--------------------|----------|------------------------|-------|
| Harbor Seal | Phoca vitulina     | Resident | Seal Island,<br>MG, QC |       |

### Other Marine Mammals

| Common Name       | Scientific<br>Name    | Status              | Location(s) | Notes                      |
|-------------------|-----------------------|---------------------|-------------|----------------------------|
| Sea Otter         | Enhydra lutris        | Historical          | Pelagic     | Locally extinct since 1906 |
| Steller's Sea Cow | Hydrodamalis<br>gigas | Possible historical |             | Extinct                    |

## Fish

| Common Name                      | Scientific Name                                     | Area(s) Found            | Notes                      |
|----------------------------------|---|--------------------------|----------------------------|
| Sharks, Skates                   | <b>Class Chondrichthyes</b>                         |                          |                            |
| Big Skate                        | Raja binoculata                                     | Deep waters              | Egg cases wash up on beach |
| Long-nosed Skate                 | Raja rhina  |                          | Washed up                  |
| Spotted Ratfish                  | Hydrolagus collieli                                 | Deep waters              | Caught at QC 1997          |
| Ray-finned Fish                  | Superclass<br>Osteichthyes: Class<br>Actinopterygii |                          |                            |
| Herrings, Sardines,<br>Anchovies | Order Clupeiformes                                  |                          |                            |
| Herring, Smelt                   | Family Clupeidae                                    |                          |                            |
| Pacific Herring                  | Clupea harengus                                     | Seasonal shallow water   | Archaeological             |
| Smoothheads,<br>Smelts           | Order Osmeriformes                                  |                          |                            |
| Smelts                           | Family Osmeridae                                    |                          |                            |
| Surf Smelt                       | Hypomesus pretiosus                                 | Shallow water, tidepools | QC                         |
| Pikes, Salmon,<br>Trout          | Order Salmoniformes                                 |                          |                            |
| Salmon, Trout                    | Family Salmonidae                                   |                          |                            |
| Steelhead                        | Oncorhynchus<br>gairdneri                           | Accidental tidepool      | QC                         |
| Coho salmon                      | Oncorhynchus kisutch                                | Accidental tidepool      | QC                         |
| Cods, Rattails,<br>Eelpouts      | Order Gadiformes                                    |                          |                            |
| Codfishes                        | Family Gadidae                                      |                          |                            |
| Hake                             | Merluccius productus                                | Deep water               | Archaeological, nocturnal  |
| Pacific Tomcod                   | Microgadus proximus                                 | QC                       | Archaeological, nocturnal  |

| Common Name                   | Scientific Name                | Area(s) Found             | Notes          |
|-------------------------------|--------------------------------|---------------------------|----------------|
| Sticklebacks, Order           |                                |                           |                |
| Seahorses                     | Gasterosteiformes              |                           |                |
| Sticklebacks                  | Family Gasterosteidae          |                           |                |
| Threespine<br>Stickleback     | Gasterosteus aculeatus         | Tidepools                 | QC             |
| Scorpionfishes,<br>Rockfishes | Order<br>Scorpaeniformes       |                           |                |
| Rockfish                      | Family Scorpaenidae            |                           |                |
| Copper Rockfish               | Sebastes caurinus              | Shallow water, deep water |                |
| Black Rockfish                | Sebastes melanops              | Shallow water, deep water |                |
| Greenlings                    | Family<br>Hexagrammidae        |                           |                |
| Lingcod                       | Ophiodon elongatus             | Shallow water, deep water |                |
| Kelp Greenling                | Hexagrammos<br>decagrammus     | Shallow water             | MG             |
| Rock Greenling                | Hexagrammos<br>lagocephalus    | Shallow water             | QC             |
| Whitespotted<br>Greenling     | Hexagrammos stelleri           | Shallow water             |                |
|                               |                                |                           |                |
| Sculpins                      | Family Cottidae                |                           |                |
| Buffalo Sculpin               | Enophrys bison                 | Shallow water             | Archaeological |
| Brown Irish Lord              | Hemilepidotus spinosus         | Shallow water             |                |
| Red Irish Lord                | Hemilepidotus<br>hemilepidotus | Shallow water             | FP             |
| Cabezon                       | Scorpaenicthys marmoratus      | Shallow water             | QC, MG         |
| Staghorn Sculpin              | Leptocottus armatus            | Tidepools                 | QC             |
| Tidepool Sculpin              | Oligocottus maculosus          | Tidepools                 | QC, MG         |
| Rosylip Sculpin               | Ascelichthys rhodorus          | Tidepools                 | QC, MG         |
| Fluffy Sculpin                | Oligocottus snyderi            | Tidepools                 | QC, MG         |
| Mosshead Sculpin              | Clinocottus globiceps          | Tidepools                 | MG             |
|                               |                                |                           |                |
| Snailfish                     | Family Cyclopteridae           |                           |                |
| Tidepool Snailfish            | Liparis florae                 | Shallow water             | QC, MG         |

| Common Name                         | Scientific Name                      | Area(s) Found            | Notes  |
|-------------------------------------|--------------------------------------|--------------------------|--------|
| Perch-like Fishes                   | Order Perciformes                    |                          |        |
| Sandlances                          | Family Ammodytidae                   |                          |        |
| Sandlance                           | Ammodytes hexapterus                 | Shallow water, tidepools |        |
|                                     |                                      |                          |        |
| Surfperch                           | Family Embiotocidae                  |                          |        |
| Redtail Surfperch                   | Amphisticus rhodoterus               | Shallow water            |        |
| Striped Surfperch                   | Embiotoca lateralis                  | Shallow water            |        |
|                                     |                                      |                          |        |
| Pricklebacks                        | Family Stichaeidae                   |                          |        |
| High Cockscomb                      | Anoplarchus purpurescens             | Tidepools, under rocks   | QC, MG |
| Snake Prickleback                   | Lumpenus sagitta                     | Tidepools, under rocks   | MG     |
| Rock Prickleback                    | Xiphister mucosus                    | Tidepools, under rocks   | QC     |
|                                     |                                      | (                        |        |
| Gunnels                             | Family Pholidae                      |                          |        |
| Penpoint Gunnel                     | Apodichthys flavidus                 | Tidepools, under rocks   | QC, MG |
| Clingfish                           | Family Gobiesocidae                  |                          |        |
| Northern Clingfish                  | Gobiesox maeandricus                 | Tidepools, under rocks   | QC, MG |
|                                     |                                      |                          |        |
| Flatfishes                          | Order<br>Pleuronectiformes           |                          |        |
| Left-eyed, Right-<br>eyed Flounders | Families Bothidae,<br>Pleuronectidae |                          |        |
| Speckled Sanddab                    | Citharichthys<br>stigmaeus           | Shallow water            | QC     |
| Pacific Halibut                     | Hippoglossus<br>stenolepis           | Deep water               |        |
| Sand Sole                           | Psettichthys<br>melanostictus        | Shallow water            | QC     |
| Starry Flounder                     | Platichthys stellatus                | Shallow water            |        |
| English Sole                        | Parophrys vetulus                    | Shallow water            | QC     |
| Butter Sole                         | Isopsetta isolepis                   | Shallow water            |        |

| Common Name     | Scientific Name            | Area(s) Found | Notes            |
|-----------------|----------------------------|---------------|------------------|
| C-O Sole        | Pleuronichthys<br>coenosus | Shallow water | QC               |
|                 |                            |               |                  |
| Sunfishes,      | Order                      |               |                  |
| Pufferfishes    | Tetraodontiformes          |               |                  |
| Ocean Sunfishes | Family Molidae             |               |                  |
| Ocean Sunfish   | Mola mola                  | Pelagic       | Seasonal visitor |

# Marine Plant List for Yaquina Head

(See Footnote)

# **Kingdom Plantae: Subkingdom Chromista Nonvascular Plants**

| Common Name      | Scientific Name             | Habitat    | Notes                          |
|------------------|-----------------------------|------------|--------------------------------|
| Diatoms          | Division<br>Bacillariophyta |            |                                |
| Colonial diatoms | Fragilia sp.                | Everywhere | First to settle in Quarry Cove |

#### Subkingdom Algae Algae

| Common Name           | Scientific Name           | Habitat              | Notes |
|-----------------------|---------------------------|----------------------|-------|
| Green Algae           | Class<br>Chlorophycaeae   |                      |       |
| Sea Hair Enteromorpha | Enteromorpha intestinalis | Everywhere           |       |
| Enteromorpha          | Enteromorpha linza        | Quarry Cove          |       |
| Sea Lettuce           | Ulva fenestrata           | Everywhere           |       |
| Green Sea Moss        | Cladophora sp.            | High, mid zone       |       |
| Sea Rope              | Acrosiphonia<br>mertensi  | Low tide zone        |       |
| Dead Man's Finger     | Codium fragile            | Low tide zone        |       |
| Black Sponge          | Codium setchellii         | Caves, shade         |       |
| Green Epiphyte        | ?                         | On surfgrass         |       |
| Brown Algae           | Class<br>Phaeophycaeae    |                      |       |
| Tar Spot              | Ralfsia pacifica          | High, mid tide zones |       |
| Whip Tube             | Scytosiphon<br>lomentaria | Low tide zone        |       |
| Whip tube             | Scytosiphon dotyi         | High tide zone       |       |
| Fir Needle            | Analipus japonicus        | High, mid tide zone  |       |
| Sargassum             | Sargassum muticum         | Quarry Cove          |       |
| Little Rockweed       | Pelvetiopsis limitata     | High tide zone       |       |
| Rockweed              | Fucus gardneri            | High tide zone       |       |

| Common Name      | Scientific Name           | Habitat            | Notes                    |
|------------------|---------------------------|--------------------|--------------------------|
| Sea Brain        | Leathesia difformis       | Mid tide zone      |                          |
| Wide Desmarentia | Desmerestia ligulata      | Mid, low tide zone |                          |
| Petalonia        | Petalonia fascia          | Low zone           |                          |
| Sea Palm         | Postelsia<br>palmaeformis | High wave exposure |                          |
| Sea Cabbage      | Hedophyllum sessile       | Low zone           |                          |
| Pom-pon          | Pterygophora californica  | Low zone           |                          |
| Seersucker       | Costaria costata          | Low                |                          |
| Wing Kelp        | Alaria marginata          | Low                |                          |
| Feather Boa Kelp | Egregia menziesii         | Low                |                          |
| Split Kelp       | Laminaria setchellii      | Low                |                          |
| Sugar Kelp       | Laminaria<br>saccharina   | Low                |                          |
| Small Leaf Kelp  | Laminaria sinclairii      | Low                |                          |
| Perennial Kelp   | Macrocystis sp.           |                    | Washed up on beach often |
| Bull Kelp        | Nereocystis<br>luetkeanus | Offshore           |                          |

| Red Algae        | Class<br>Rhodophycaeae     |                 |                     |
|------------------|----------------------------|-----------------|---------------------|
| Polysiphona      | Polysiphonia sp.           | Low zone        |                     |
| Callithamnion    | Callithamnion sp.          | Low zone        |                     |
| Microcladia      | Microcladia borealis       | Low zone        |                     |
| Odonthalia       | Odonthalia floccosa        | Low zone        |                     |
| Sea Sack         | Halosaccion<br>glandiforme | Mid, low zone   |                     |
| Plocamium        | Plocamium cartilagineum    | Low zone        |                     |
| Dulse            | Palmaria palmata<br>mollis | Low zone        |                     |
| Black Pine       | Rhodemela larix            | Low zone        |                     |
| Nail Brush       | Endocladia muricata        | Mid zone        |                     |
| Sea Tongue       | Mastocarpus<br>papillatus  | Mid, high zones | Has "sea tar" phase |
| Turkish Towel    | Gigartina exasperata       | Mid, low zone   |                     |
| Iodine Kelp      | Prionitis lanceolata       | Mid zone        |                     |
| Mermaid's Cup    | Consantinea simplex        | Low zone        |                     |
| Fall/Winter Nori | Porphyra sp.               | High zone       |                     |

| Common Name                 | Scientific Name     | Habitat              | Notes                 |
|-----------------------------|---------------------|----------------------|-----------------------|
| Spring/Summer Nori          | Porphyra sp.        | High zone            |                       |
| Epiphytic Nori              | Porphyra sp.        | On surfgrass         |                       |
| Iridescent Seaweed          | Iridaea splendens   | Low zone             |                       |
| Iridescent Seaweed          | Iridaea cornucopiae | High zone            |                       |
| Woody Kelp                  | Gymnogongrus sp.    | Low zone, with sand. |                       |
| Coralline Algae             | Lithothamnium sp.   | Mid, low zone        |                       |
| Branched Coralline<br>Algae | Corallina sp.       | Mid, low zone        |                       |
| Bead Coral                  | Calliarthron sp.    | Mid, low zone        |                       |
| Surfgrass coralline algae   | Melobesia mediocris | Low zone             | Epiphyte on surfgrass |

#### Subkingdom Tracheobionta Vascular Plants

| Common Name | Scientific Name       | Habitat            | Notes                      |
|-------------|-----------------------|--------------------|----------------------------|
|             |                       |                    | True vascular plants       |
| Sea Grasses | Family Zosteraceae    |                    | (i.e., not algae), but not |
|             |                       |                    | true grasses               |
| Eelgrass    | Zostera marina        | Sand bottoms       |                            |
| Surfgrass   | Phyllospadix scouleri | Low zone, on rocks |                            |
| Surfgrass   | Phyllospadix torreyi  | Surge channels     |                            |

<sup>\*</sup> The higher level taxonomy of the plant kingdom is not well-resolved (<a href="http://www.factmonster.com/ce6/sci/A0860417.html">http://www.factmonster.com/ce6/sci/A0860417.html</a>). Names for the subkingdoms vary, and there is doubtless disagreement as to the number and arrangement of subkingdoms. Subkingdom designations are included to indicate the broad, general relationships of the lower groupings. – TM

This is only a partial list of marine plants at Yaquina Head. Many more species were seen but not identified due to lack of time. There are over 400 species of algae on the Oregon Coast.

# Invertebrate List for Yaquina Head

#### Phylum Porifera Sponges

| Common Name              | Scientific Name           | Environment  | Locations | Zone        | Notes     |
|--------------------------|---------------------------|--------------|-----------|-------------|-----------|
| Spongin<br>Sponges       | Class<br>Demospongiae     |              |           |             |           |
| Purple, Pink<br>Sponge   | Haliclona permollis       | Shade, caves | All, QC   | Low,<br>Mid |           |
| Yellow Boring<br>Sponge  | Cliona celata             | Shade, caves | All       | Low         |           |
| Crumb of Bread<br>Sponge | Halichondria<br>panicea   | Shade, caves | All       | Low         |           |
| Red Sponge               | Ophlitaspongia<br>pennata | Shade, caves | All       | Low         |           |
| Tan Sponge               | Geodia mesotriaena        |              |           | Low         | Washed up |
|                          |                           |              |           |             |           |
| Calcareous<br>Sponges    | Class Pharetronida        |              |           |             |           |
| Vase Sponge              | Leucilla nuttingi         | Shade, caves | All       | Subtidal    |           |

#### Phylum Cnidaria Cnidarians

| Common Name   | Scientific Name | Environment | Locations | Zone | Notes     |
|---------------|-----------------|-------------|-----------|------|-----------|
| Hydroids      | Class Hydrozoa  |             |           |      |           |
| Ostrich Plume | Aglaophenia sp. | Caves       | FP        | Low  |           |
| Sertularia    | Sertularia sp.  | Caves       | FP        | Low  | Washed up |

| Common Name              | Scientific Name               | Environment        | Locations | Zone        | Notes |
|--------------------------|-------------------------------|--------------------|-----------|-------------|-------|
| By-The-Wind<br>Sailor    | Velella velella               | Pelagic            | MG, QC    | Open ocean  |       |
|                          |                               |                    |           |             |       |
| Jellyfish                | Class Scyphozoa               |                    |           |             |       |
| Moon Jellyfish           | Aurelia aurita                | Pelagic            | All       | Open ocean  |       |
| Lion's Mane<br>Jelly     | Cyanea capillata              | Pelagic            | All       | Open ocean  |       |
| Unid.<br>Scyphozoan      | ?                             | Algae              | QC        | Low         |       |
| Bell Jelly               | ?                             | Pelagic            | QC        | Low         |       |
|                          |                               |                    | •         | •           |       |
| Anemones                 | Class Anthozoa                |                    |           |             |       |
| Proliferating<br>Anemone | Epiactis prolifera            | Surfgrass, rocks   | MG, QC    | Low,<br>mid |       |
| Aggregating<br>Anemone   | Anthopleura<br>elegantissima  | Rocks              | All       | Mid         |       |
| Giant Green<br>Anemone   | Anthopleura<br>xanthogrammica | Rocks, crevices    | All, QC   | Mid,<br>low |       |
| Red and Green<br>Anemone | Urticina felina               | Under rocks, caves | QC, FP    | Low         |       |
| Sea Raspberry            | Alcyonium sp.                 | Caves              | FP        | Low         |       |
| Scarlet<br>Anemone       | Tealia coriacea               | Under rocks, caves | QC, FP    | Low         |       |
| Burrowing<br>Anemone     | Anthopleura<br>artemisia      | In deep pools      | MG        | Low         |       |

#### Phylum Gnathostomulida Jaw Worms

| Common Name   | Scientific Name           | Environment           | Locations | Zone | Notes  |
|---------------|---------------------------|-----------------------|-----------|------|--|
| Gnathostomula | Gnathostomula<br>karlingi | Surfgrass<br>rhizoids | MG        | Low  | Species<br>first<br>described<br>at<br>Yaquina<br>Head<br>1971<br>(Riedl,<br>1971) |

# Phylum Platyhelminthes Flatworms

| <b>Common Name</b> | Scientific Name | Environment | Locations     | Zone | Notes |
|--------------------|-----------------|-------------|---------------|------|-------|
| Brown Flatworm     | Notoplana sp.   | Under rocks | MG, QC,<br>FP | Low  |       |

#### Phylum Nemertea Nemerteans

| <b>Common Name</b>         | Scientific Name            | Environment | Locations | Zone | Notes                                 |
|----------------------------|----------------------------|-------------|-----------|------|---------------------------------------|
| <b>Ribbon Worms</b>        |                            |             |           |      |                                       |
| Orange Ribbon<br>Worm      | Tubulanus<br>polymorphus   | Mussel beds | MG, FP    | Low  |                                       |
| Grey Ribbon<br>Worm        | Amphiporus<br>formidabilis | Mussel beds | All       | Mid  |                                       |
| Brown Ribbon<br>Worm       | Paranemertes<br>peregrina  | Mussel beds | All       | Mid  |                                       |
| Two-spotted<br>Ribbon Worm | Amphiporus<br>bimaculatus  |             | MG        | Low  | Photo-<br>graphed<br>29 March<br>2003 |

#### Phylum Annelida Segmented Worms

| Common Name             | Scientific Name            | Environment         | Locations | Zone               | Notes |
|-------------------------|----------------------------|---------------------|-----------|--------------------|-------|
| Polychaete<br>Worms     | Class Polychaeta           |                     |           |                    |       |
| Calcareous Tube<br>Worm | Serpula vermicularis       | On rocks            | All       | Mid                |       |
| Small Tube<br>Worms     | Spirorbis sp.              | On rocks, shells    | ?         | Low                |       |
| Feather Duster<br>Worm  | Schizobronchia<br>insignis | Caves               | FP        | Low                |       |
| Parchment tubes         | Eudistylia sp.             | Rocks               | QC        | Low                |       |
| Hairy Gilled<br>Worm    | Thelepus crispus           | Rocks, sand, gravel | QC        | Mid,<br>low        |       |
| Basket-top Tube<br>Worm | Pista elongata             | Rocks               | MG        | Mid to<br>Subtidal |       |
| Scaleworm               | Harmothoe imbricata        | Mussel beds         | MG        | Mid,<br>low        |       |
| Commensal<br>Scaleworm  | Arctonoe vittata           | Limpets,<br>Chitons | All       | Low                |       |
| Mussel Worm             | Nereis vexillosa           | Mussel beds, rocks  | All       | Mid                |       |
| Sand Worm               | Neanthes brandti           | Sand, under rocks   | QC        | Mid,<br>low        |       |
| Lugworm                 | Abarenicola sp.            | In sand             | QC, MG    | Low                |       |

### Phylum Sipuncula Peanut Worms

| Common Name | Scientific Name   | Environment     | Locations     | Zone | Notes |
|-------------|-------------------|-----------------|---------------|------|-------|
| Peanut Worm | Golfingia procera | Crevices        | QC, MG,<br>FP | Low  |       |
| Sea Pear    | Themiste pyroides | Crevices, holes | MG, FP        | Low  |       |

## Phylum Ectoprocta

Bryozoans

| <b>Common Name</b>              | Scientific Name              | Environment                      | Locations | Zone     | Notes |
|---------------------------------|------------------------------|----------------------------------|-----------|----------|-------|
| Hairy bryozoan                  | Flustrellidra<br>corniculata | Eelgrass, algae                  | MG        | Subtidal |       |
| Coral bryozoan                  | Heteropora magna?            | Rock                             | FP        | Low      |       |
| Leafy bryozoan                  | Dendrobeania lichenoides?    | Rock                             | FP        | Low      |       |
| White<br>Encrusting<br>Bryozoan | Membranipora<br>membranacea  | Algae,<br>eelgrass,<br>surfgrass | All       | Low      |       |
| Brown Encrusting Bryozoan       | ?                            | Rock                             | All       | Low      |       |

### Phylum Mollusca Molluscs

| Common Name                 | Scientific Name       | Environment | Locations   | Zone        | Notes  |
|-----------------------------|-----------------------|-------------|-------------|-------------|--------|
| Bivalves                    | Class Bivalvia        |             |             |             |        |
| California<br>Mussel        | Mytilus californianus | Rock        | All         | Mid         |        |
| Bay Mussel                  | Mytilus trossulus     | Rock        | QC          | Mid         |        |
| Rock Scallop                | Hinnites giganteus    | Rock        | MG          | Subtidal    |        |
| Cockle                      | Clinocardium nuttali  | Sand        | MG, QC      | Low         |        |
| Sea Bottle Clam             | Mytilimoria muttali   |             | MG          | Subtidal    | Washed |
| Sea Bottle Claim            | Mytilimeria nuttali   |             | MG          | Subudai     | up     |
| Northwest Ugly<br>Clam      | Entodesma saxicola    | Rocks       | MG          | Low         |        |
| Piddock                     | Penitiella penita     | Rocks       | All         | Mid,<br>low |        |
| Razor Clam                  | Siliqua patula        | Sand        | QC, beaches | Low         |        |
| Butter Clam                 | Saxidomus giganteus   | Sand, rocks | MG          | Low         |        |
| Littleneck Clam             | Protothaca staminea   | Rocks       | MG, QC      | Low         |        |
| Japanese<br>Littleneck Clam | Tapes philippinarum   | Rocks       | MG          | Low         |        |
| Sand Clam                   | Macoma sp.            | Sand        | QC          | Low         |        |

| <b>Common Name</b>              | Scientific Name            | Environment     | Locations     | Zone         | Notes     |
|---------------------------------|----------------------------|-----------------|---------------|--------------|-----------|
| Chitons                         | Class<br>Polyplacophora    |                 |               |              |           |
| Mossy Chiton                    | Mopalia muscosa            | Rocks           | All but<br>QC | Mid          |           |
| Hairy Chiton                    | Mopalia lignosa            | Rocks           | All but<br>QC | Mid          |           |
| Lined Chiton                    | Tonicella lineata          | Rocks           | All but<br>QC | Low          |           |
| Gumboot Chiton                  | Cryptochiton stelleri      | Rocks           | MG            | Low          |           |
| Black Leather<br>Chiton         | Katharina tunicata         | Rocks           | All but<br>QC | Mid          |           |
| "Tall" Chiton                   | Ischnochiton sp.?          | Rocks           | FP            | Low          |           |
|                                 | -                          |                 | -:            | -            |           |
| Octopus, Squid                  | Class Cephalopoda          |                 |               |              |           |
| Giant Pacific                   |                            | Deep water,     |               |              | Uncom-    |
| Octopus                         | Enteroctopus dofIeini      | tidepools,      |               |              | mon in    |
| Octopus                         |                            | subtidal        |               |              | tidepools |
|                                 |                            |                 |               |              |           |
| Snails, Slugs                   | Class Gastropoda           |                 |               |              |           |
|                                 | Subclass<br>Prosobranchia  |                 |               |              |           |
| Abalones,<br>Keyhole<br>Limpets | Order<br>Archaeogastropoda |                 |               |              |           |
| Keyhole Limpet                  | Diodora aspera             | Crevices, caves | All           | Low          |           |
|                                 |                            | ·               | 1             |              |           |
| Limpets                         | Order<br>Patellogastropoda |                 |               |              |           |
| White Cap<br>Limpet             | Acmaea mitra               | Rocks           | MG            | Low          |           |
| Shield Limpet                   | Lottia pelta               | Rocks           | All           | Mid          |           |
| Plate Limpet                    | Tectura scutum             | Rocks           | All           | Mid          |           |
| Finger Limpet                   | Lottia digitalis           | Rocks           | All           | High         |           |
| Masked Limpet                   | Notoacmaea persona         | Rocks           | All           | Mid          |           |
| "Small finger-<br>limpet like"  | Lottia strigatella         | Rocks           | All           | Mid,<br>high |           |

| Common Name              | Scientific Name             | Environment        | Locations | Zone        | Notes |
|--------------------------|-----------------------------|--------------------|-----------|-------------|-------|
| Snails                   | Order<br>Neogastropoda      |                    |           |             |       |
| Leafy<br>Hornmouth       | Ceratostoma<br>foliatum     | Rocks              | All       | Low         |       |
| Purple Whelk             | Nucella lamellosa           | Rocks              | All       | Mid,<br>low |       |
| Ribbed Whelk             | Nucella emarginata          | Rocks              | All       | Mid         |       |
| Channeled<br>Whelk       | Nucella canaliculata        | Mussel beds, rocks | All       | Mid         |       |
| Dire Whelk               | Searlesia dira              | Rocks              | MG        | Mid,<br>low |       |
| Wrinkled Dove<br>Snail   | Amphissa<br>columbiana      | Mussel beds, rocks | All       | Low         |       |
| Purple Olive<br>Snail    | Olivella biplicata          | Sand               | Beaches   | Low         |       |
| Wentletrap               | Opalia chacei               | Bases of anemones  | MG        | Mid         |       |
| Slipper Shell            | Crepidula sp.               | On snails, limpets | MG        | Low         |       |
| Black Turban<br>Snail    | Tegula funebralis           | Rocks              | All       | Mid         |       |
| Blue Top Snail           | Calliostoma ligatum         | Rocks              | All       | Low         |       |
| Checkered<br>Periwinkle  | Littorina scutulata         | Rocks              | All       | High        |       |
| Chink Snail              | Lacuna marmorata            | Algae              | All       | Low         |       |
|                          | Subclass<br>Opisthobranchia |                    |           |             |       |
| Nudibranchs              | Order<br>Nudibranchia       |                    |           |             |       |
| Monterey Sea<br>Lemon    | Archidoris<br>montereyensis | Rocks              | All       | Low         |       |
| Sea Lemon                | Anisodoris nobllis          | Rocks              | All       | Low         |       |
| Sea Clown                | Triopha catalinae           | Rocks              | All       | Low         |       |
| Frosted<br>Nudibranch    | Dirona albolineata          | Sand               | QC, MG    | Low         |       |
| Opalescent<br>Nudibranch | Hermissenda<br>crassicornis | Sand, rocks, algae | All       | Low         |       |

| <b>Common Name</b>         | Scientific Name           | Environment | Locations | Zone | Notes |
|----------------------------|---------------------------|-------------|-----------|------|-------|
| Sea Mouse                  | Aeolidea papillosa        | Rocks       | MG        | Low  |       |
| Ringed Doris               | Diaulula<br>sandiegensis  | Rocks       | All       | Low  |       |
| Red Sponge<br>Nudibranch   | Rostanga pulchra          | Red sponge  | MG        | Low  |       |
| Yellow Edged<br>Cadlina    | Cadlina<br>luteomarginata | Rocks       | QC, MG    | Low  |       |
| Barnacle-eating Nudibranch | Onchidoris<br>bilamellata | Rocks       | QC        | Low  |       |

### Phylum Arthropoda Joint-footed Animals

| Common Name            | Scientific Name                                     | Environment     | Locations | Zone         | Notes |
|------------------------|---|-----------------|-----------|--------------|-------|
| Crustaceans            | Subphylum<br>Crustacea                              |                 |           |              |       |
| Barnacles              | Subclass Cirripedia                                 |                 |           |              |       |
| Gray Barnacle          | Chthamalus dalli                                    | Rocks           | All       | Spray        |       |
| Acorn Barnacle         | Balanus glandula                                    | Rocks           | All       | High         |       |
| Thatched<br>Barnacle   | Semibalanus<br>cariosus                             | Rocks           | All       | Mid,<br>low  |       |
| Giant Barnacle         | Balanus nubilus                                     | Rocks           | FP        | Subtidal     |       |
| Gooseneck<br>Barnacle  | Pollicipes polymerus                                | Rocks           | All       | Mid          |       |
| "Subtidal"<br>Barnacle | Balanus crenatus                                    | Rocks           | All       | Subtidal     |       |
|                        |   |                 |           |              |       |
| Amphipods,<br>Isopods  | Class Malacostraca:<br>Orders Amphipoda,<br>Isopoda |                 |           |              |       |
| Copepod                | ?   | Small pools     | All       | Spray        |       |
| Kelp Flea              | ?   | Beach           | All       | Spray        |       |
| Green amphipod         | ?   | Algae           | All       | Mid          |       |
| Black amphipod         | ?   | Algae           | All       | Mid          |       |
| Rockweed<br>Isopod     | Idotea wosnesenskii                                 | Algae, rocks    | All       | High,<br>mid |       |
| Green Isopod           | Idotea montereyensis                                | Eelgrass, algae | All       | Low          |       |
| Isopod                 | Idotea urotoma                                      | Eelgrass, algae | All       | Low          |       |
| Rocks Louse            | Ligia pallasii                                      | Rocks           | All       | Spray        |       |
| Gribble                | Limnoria sp.  | Wood            | MG        | Low          |       |

| Common Name                    | Scientific Name              | Environment      | Locations | Zone     | Notes |
|--------------------------------|------------------------------|------------------|-----------|----------|-------|
| Multicolored<br>Pill Bug       | Exosphaeroma<br>amplicauda   | Mussel beds      | MG        | Mid      |       |
| Pill Bug                       | Gnorimosphaeroma oregonense  | In crevices      | QC        | Mid      |       |
| Parasitic Isopod               | ?                            | Flatfish         | QC        | Subtidal |       |
|                                |                              |                  |           |          |       |
| Mysids                         | Order Mysida                 |                  |           |          |       |
| Unid. Mysid                    | ?                            | All pools        | QC        | Low      |       |
| ~                              |                              |                  |           |          |       |
| Shrimp, Crabs                  | Order Decapoda               |                  |           |          |       |
| Shrimp                         | Infraorder Caridea           |                  |           |          |       |
| Broken Back<br>Shrimp          | Heptacarpus pugettensis      | All pools, algae | All       | Low      |       |
| Opossum<br>Shrimp              | Lissocrangon<br>stylirostris | Sand             | QC        | Low      |       |
| 1                              |                              | 1                |           |          |       |
| Hermit Crabs,                  | Infraorder                   |                  |           |          |       |
| King Crabs                     | Anomura                      |                  |           |          |       |
| Ghost Shrimp                   | Neotrypaea<br>californiensis | Sand, mud        | QC        | Low      |       |
| Mole Crab                      | Emerita analoga              | Sand             | QC        | Low      |       |
| Hairy Hermit<br>Crab           | Pagurus<br>hirsutiusculus    | Rocks, algae     | All       | Mid      |       |
| Grainyhand<br>Hermit Crab      | Pagurus<br>granosimanus      | Rocks, algae     | All       | Mid      |       |
| Blue-Clawed<br>Hermit Crab     | Pagurus samuelis             | Rocks, algae     | MG        | Low      |       |
| Flat Porcelain<br>Crab         | Petrolisthes cinctipes       | Mussel beds      | All       | Mid      |       |
| Flattop Porcelain<br>Crab      | Petrolisthes<br>eriomerus    | Mussel beds      | All       | Mid      |       |
| Thick Clawed<br>Porcelain Crab | Pachycheles rudis            | Mussel beds      | FP        | Mid      |       |
| Yellow-Bellied<br>Crab         | Oedignathus intermis         | Crevices         | FP        | Low      |       |

| Common Name                 | Scientific Name           | Environment                        | Locations | Zone         | Notes |
|-----------------------------|---------------------------|------------------------------------|-----------|--------------|-------|
| "True" Crabs                | Infraorder<br>Brachyura   |                                    |           |              |       |
| Blue Clawed<br>Crab         | Lophopanopeus<br>bellus   | Crevices                           | MG        | Low          |       |
| Sharp Nosed<br>Crab         | Scyra acutifrons          | Algae                              | QC        | Low          |       |
| Graceful Kelp<br>Crab       | Pugettia gracilis         | Algae                              | All       | Low          |       |
| Northern Kelp<br>Crab       | Pugettia producta         | Algae                              | All       | Low          |       |
| Purple Shore<br>Crab        | Hemigrapsus nudus         | Under rocks                        | All       | Mid,<br>high |       |
| Yellow Shore<br>Crab        | Hemigrapsus oregonensis   | Under rocks                        | QC        | Mid,<br>high |       |
| Lined Shore<br>Crab         | Pachygrapsus<br>crassipes | Under rocks                        | All       | High         |       |
| Dungeness Crab              | Cancer magister           | Sand                               | All       | Mid.<br>Low  |       |
| Subtidal Rock<br>Crab       | Cancer branneri           | Kelp                               | QC        | Subtidal     |       |
| Pacific Rock<br>Crab        | Cancer antennarius        | Rock                               | All       | Low          |       |
| Hairy Rock Crab             | Cancer oregonensis        | Rock                               | All       | Mid,<br>low  |       |
| Red Rock Crab               | Cancer productus          | Rock                               | All       | Low          |       |
| Insects and<br>Their Allies | Subphylum<br>Hexapoda     |                                    |           |              |       |
| Springtails                 | Order Collembola          |                                    |           |              |       |
| Seashore<br>Springtail      | Anurida maritima          | Tidepool surface film, under rocks | MG        |              |       |
|                             |                           |                                    |           |              |       |
| Insects                     | Class Insecta             |                                    |           |              |       |
| Flies                       | Order Diptera             |                                    |           |              |       |
| Crane Fly                   | Limonia marmorata         | Algae, rocks                       | All       | Spray        |       |
| Kelp Fly                    | Coelopa vanduzeei         | Dead algae                         | All       | Spray        |       |

| Common Name | Scientific Name                      | Environment | Locations | Zone  | Notes |
|-------------|--------------------------------------|-------------|-----------|-------|-------|
| Mites       | Class Arachnida:<br>Subclass Acarina |             |           |       |       |
| Red Mite    | Neomolgus littoralis                 | Rocks       | All       | Spray |       |

### Phylum Echinodermata Spiny-skinned Animals

| Common Name                | Scientific Name                      | Environment | Locations | Zone             | Notes |
|----------------------------|--------------------------------------|-------------|-----------|------------------|-------|
| Sea Urchins                | Class Echinoidea                     |             |           |                  |       |
| Purple Sea<br>Urchin       | Strongylocentrotus<br>purpuratus     | Rocks       | All       | Mid,<br>low      |       |
| Red Sea Urchin             | Strongylocentrotus<br>franciscanus   | Rocks       | MG        | Low,<br>subtidal |       |
| Green Sea<br>Urchin        | Strongylocentrotus<br>droebachiensis | Under rocks | FP        | Low,<br>subtidal |       |
| Sea Cucumbers              | Class<br>Holothuroidea               |             |           |                  |       |
| White Sea<br>Cucumber      | Eupentacta<br>quinquesemita          | Mussel beds | All       | Low,<br>mid      |       |
| Red Sea<br>Cucumber        | Cucumaria miniata                    | Crevices    | MG, FP    | Low              |       |
| California Sea<br>Cucumber | Parastichopus californicus           | Pools       | MG        | Low, subtidal    |       |
| Stars                      | Class Stelleroidea                   |             |           |                  |       |
| Brittle Stars              | Subclass<br>Ophiuroidea              |             |           |                  |       |
| Daisy Brittle<br>Star      | Ophiopholus aculata                  | Sand, kelp  | All       | Low              |       |
| Brittle Star               | Amphipholis<br>squamata              | Sand, kelp  | All       | Low              |       |

| Common Name        | Scientific Name             | Environment   | Locations     | Zone     | Notes                          |
|--------------------|-----------------------------|---------------|---------------|----------|--------------------------------|
| Sea Stars          | Subclass Asteroidea         |               |               |          |                                |
|                    | Order<br>Forcipulatida      |               |               |          |                                |
| Six-Armed Star     | Leptasterias hexactis       | Rock          | All           | Mid      |                                |
| Pink Sea Star      | Pisaster brevispinus        | Sand          | QC            | Low      |                                |
| Common Sea<br>Star | Pisaster ochraceus          | Rocks         | All           | Mid      |                                |
| Sunflower Star     | Pycnopodia<br>helianthoides | Sand, rocks   | All           | Low      |                                |
| Mottled Sea Star   | Evasterias troschelli       | Rocks         | FP            | Mid      |                                |
|                    | Order Spinulosida           |               |               |          |                                |
| Sun Star           | Solaster stimpsoni          | Sand, rocks   | MG            | Subtidal |                                |
| Blood Star         | Henricia sp. A              | Rocks, sponge | All but<br>QC | Low      |                                |
| Blood Star         | Henricia sp. B              | Rocks         | MG            | Low      | Lambert<br>2000, plate<br>C-25 |

#### Phylum Chordata Chordates

(Humans are chordates)

| <b>Common Name</b>      | Scientific Name        | Environment     | Locations | Zone     | Notes |
|-------------------------|------------------------|-----------------|-----------|----------|-------|
| Tunicates               | Subphyllum<br>Tunicata |                 |           |          |       |
| Stalked Sea<br>Squirt   | Styela montereyensis   | Rocks           | All       | Low      |       |
| Sea Pork                | Aplidium sp.           | Rocks           | All       | Low      |       |
| "Clam Sea<br>Squirt"    | Archidistoma psammion  | Sea bottle clam | MG        | Subtidal |       |
| "Small red sea squirts" | ?                      | Crevices, caves | FP        | Low      |       |

#### References

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